

WHAT IS CLAIMED IS:

1. A system for substantially automating transcription services for one or more voice users, said system comprising:

5 - means for receiving a voice dictation file from a current user, said current user being one of said one or more voice users;

- first means for automatically converting said voice dictation file into a first written text, said first automatic conversion means having a first set of conversion variables;

10 - second means for automatically converting said voice dictation file into a second written text, said second automatic converting means having a second set of conversion variables, said first and second sets of conversion variables having at least one difference; and

- means for manually editing a copy of said first and second written texts to create a verbatim text of said voice dictation file.

15 2. The invention according to Claim 1 wherein said first written text is at least temporarily synchronized to said voice dictation file, said manual editing means comprises:

20 - means for sequentially comparing a copy of said first written text with said second written text resulting in a sequential list of unmatched words culled from said copy of said first written text, said sequential list having a beginning, an end and a current unmatched word, said current unmatched word being successively advanced from said beginning to said end;

25 - means for incrementally searching for said current unmatched word contemporaneously within a first buffer associated with said first automatic conversion means containing said first written text and a second buffer associated with said sequential list; and

- means for correcting said current unmatched word in said second buffer, said correcting means including means for displaying said current unmatched word in a

manner substantially visually isolated from other text in said copy of said first written text and means for playing a portion of said synchronized voice dictation recording from said first buffer associated with said current unmatched word.

3. The invention according to Claim 2 wherein said editing means further includes
5 means for alternatively viewing said current unmatched word in context within said copy of said first written text.

4. The invention according to Claim 1 wherein said first and second automatic
speech converting means each comprises a preexisting speech recognition program
intended for human interactive use, each of said first and second automatic speech
10 converting means includes means for automating responses to a series of interactive inquiries from said preexisting speech recognition program.

5. The invention according to Claim 4 wherein said difference between said first
and second sets of conversion variables is said preexisting speech recognition program
comprising said first and second automatic speech converting means.

6. The invention according to Claim 5 wherein said automatic speech converting
15 means is selected from the group consisting essentially of Dragon Systems' Naturally Speaking, IBM's Via Voice and Philips Corporation's Magic Speech.

7. The invention according to Claim 4 wherein said difference between said first
and second sets of conversion variables comprises a language model used in association
20 with said preexisting speech recognition program.

8. The invention according to Claim 7 wherein a generalized language model is
used in said first set of conversion variables and a specialized language model is used in
said second set of conversion variables.

9. The invention according to Claim 4 wherein said difference between said first
25 and second sets of conversion variables comprises at least one setting associated with said preexisting speech recognition program.

10. The invention according to Claim 4 wherein said difference between said first
and second sets of conversion variables comprises means for pre-processing audio prior
to its input to said first automatic conversion means.

11. The invention according to Claim 10 wherein said difference between said first and second sets of conversion variables comprises means for pre-processing audio prior to its input to said second automatic conversion means, wherein said first and second pre-processing variable is different.

5 12. The invention according to Claim 11 wherein said pre-processing variables is selected from the group consisting essentially of digital word size, sampling rate, and removing particular harmonic ranges.

10 13. The invention according to Claim 1 wherein said difference between said first and second sets of conversion variables comprises a language model used in association with said preexisting speech recognition program.

14. The invention according to Claim 13 wherein a generalized language model is used in said first set of conversion variables and a specialized language model is used in said second set of conversion variables.

15 15. The invention according to Claim 1 wherein said difference between said first and second sets of conversion variables comprises means for pre-processing audio prior to its input to said first automatic conversion means.

20 16. The invention according to Claim ¹⁵~~13~~ wherein said difference between said first and second sets of conversion variables comprises means for pre-processing audio prior to its input to said second automatic conversion means, wherein said first and second pre-processing variable is different.

17. The invention according to Claim 1 further including means for training said automatic speech converting means to achieve higher accuracy with said voice dictation file of current user.

25 18. The invention according to Claim 17 wherein said training means comprises a preexisting training portion of a preexisting speech recognition program intended for human interactive use, said training means includes means for automating responses to a series of interactive inquiries from said preexisting training portion of said preexisting speech recognition program.

19. A method for automating transcription services for one or more voice users in a system including at least one speech recognition program, said method comprising the steps of:

- receiving a voice dictation file from a current voice user;
- 5 - automatically creating a first written text from the voice dictation file with a speech recognition program using a first set of conversion variables;
- automatically creating a second written text from the voice dictation file with a speech recognition program using a second set of conversion variables;
- manually establishing a verbatim file through comparison of the first and
10 second written texts; and
- returning the verbatim file to the current user.

20. The invention according to Claim 19 wherein said step of manually establishing a verbatim file includes the sub-steps of:

- sequentially comparing a copy of the first written text with the second
15 written text resulting in a sequential list of unmatched words culled from the copy of the first written text, the sequential list having a beginning, an end and a current unmatched word, the current unmatched word being successively advanced from the beginning to the end;
- incrementally searching for the current unmatched word
20 contemporaneously within a first buffer associated with the at least one speech recognition program containing the first written text and a second buffer associated with the sequential list; and
- displaying the current unmatched word in a manner substantially visually
25 isolated from other text in the copy of the first written text and playing a portion of the synchronized voice dictation recording from the first buffer associated with the current unmatched word; and

- correcting the current unmatched word to be a verbatim representation of the portion of the synchronized voice dictation recording.

21. The invention according to Claim 19 further comprising:

- selecting the first set of conversion variables from available preexisting speech recognition programs; and
- differently selecting the second set of conversion variables from available preexisting speech recognition programs.

22. The invention according to Claim 19 further comprising:

- selecting the first set of conversion variables from available language models; and
- differently selecting the second set of conversion variables from available language models.

23. The invention according to Claim 19 further comprising preprocessing the voice dictation file before automatically creating a first written text, the preprocessing forming at least a part of the first set of conversion variables.

24. The invention according to Claim 23 further comprising preprocessing the voice dictation file differently than the first set of preprocessing conversion variables before automatically creating a second written text, the preprocessing forming at least a part of the second set of conversion variables.

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Abstract